Transition Follow-up Study

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October, 2000

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Transition Follow-up Study

Introduction

The data analyzed in this report represents the first two years of the transition follow-up study. Representatives of nine districts conducted structured interviews with students leaving special education programs (or, when appropriate, their caregivers). In many cases, parents or other caregivers provided data. The intent of the follow-up study was for school personnel to complete a personal exit interview with each student who received special education prior to their exit. When that was not possible, some interviews were made with parents or guardians. In addition to the exit interview at graduation/exit, it is the intention of the Department of Public Instruction to track those same students at intervals of one, three and five years after high school. The long range goal of the study is to allow inferences to be made about the adjustment of former special education students to the rigors of adult life.

This report represents an initial step in the tracking process. It is a report of data from the first two years of the study, reflecting performance of students in nine special education units. In future years, these cohorts will be separated by their year of graduation. However, in order to generate sufficient statistical power, information from the nine special education units (over two years) is combined. The justification for doing this is that the information represents year “0” or baseline information upon leaving school.

Method

Educators from the nine participating special education units contacted each individual leaving school served under an individual educational program (IEP) (“leavers”). A series of questions were posed with respect to transition planning and related educational issues. The interview format is shown as Appendix A of this report. Interview data were submitted to the Bureau of Educational Services and Applied Research (BESAR) where they were entered, as described below, into SPSS for Windows (SPSS, Version 10.1, 2000). Frequencies and percentages, as well as means were calculated via SPSS subroutines.

All questions that required respondents to select one (often phrased as "the best") of an array of choices were coded via numerical values related to the choice. On some items respondents could select all appropriate choices. These were recorded with a column of 1's and 0's, with 1's meaning that the item was selected and 0 that it was not.

In many cases, no response whatsoever was generated for items. In this event, it was difficult to distinguish between whether a factor was merely not picked or whether the individual interviewed was unable to select any responses from the choices provided; for example, that they had no information or recalled no information one way or the other. Thus, in the results below, two values are frequently provided. In one column, labeled "percent", the percent of all individuals participating in the study is meant (in all cases that means out of 241 cases available for analysis). A second column, labeled, "valid percent", represents the percentage of the sample where BESAR staffers could be sure that a meaningful response (either positive or negative) was generated, that is, where a value was filled in on the answer sheet.

Results

Altogether, 241 usable interviews were available over Year 1 and Year 2 of the project. The data in this report is based on this information. Sections are devoted below to (1) description of participants, (2) performance at the individual educational program meeting, (3) student goals,

(4) agencies and individuals assisting students, and (5) ratings of program quality. A separate subsection of the Results section is devoted to each topic. These roughly follow the order of the items as they were addressed in the interview and as shown as Appendix A. Following the Results section is a summary of findings.

Descriptions of Participants

The distribution of high school leavers by special education unit is shown in table 1. Despite differences in their relative size favoring Fargo, Wilmac showed more students graduating and otherwise leaving their special education program in their first study year (spring, 2000). The percentage is the percent of the total sample reflected by that unit's proportion of "initial year" leavers.

Table 1. Participating Districts, numbers, and percentages [of students]

Special Ed Unit	Frequency	Percent	Initial Year
Fargo	45	18.7	1999
Lake Region	10	4.1	1999
Peace Garden	18	7.5	1999
Wilmac	76	31.5	1999
Buffalo Valley	31	12.9	2000
Dickinson	27	11.2	2000
Emmons	6	2.5	2000
Pembina	7	2.9	2000
West Fargo	21	8.7	2000
Total	**241**	**100.0**	

The gender and racial makeup of respondents are shown respectively in Tables 2 and 3. The proportion of males roughly matches published research findings wherein males are shown to be over-represented in disability case loads. In several studies up to two times as many male students were identified under IDEA and its predecessor EHA as females. In perhaps the most direct comparison, during the 1991-1992 school year in Wisconsin, males represented 81% of students with emotional disturbance. The associated figures for LD and speech-language disabilities were 71% and 66% respectively. In addition, the degree of overrepresentation among males has been a consistent finding. For example, in 1994, males made up 69% of the special education leavers from the St. Cloud, Minnesota school district (Davis, 1990; Harmon, 1992; Lazarri, 1985; Nemeth, 1994). The North Dakota sample is roughly equivalent with national and regional data.

Table 2. Sex of students

Sex	Number	Percent
Male	161	66.8
Female	80	33.2
Total	241	100.0

The racial make up of respondents reflects the overwhelming number of European-American students served in the state of North Dakota. However, the racial makeup of the sample represents nearly twice the proportion of American Indians that would be expected by chance, given the population proportion (just over 4% according to the 1990 census). This may reflect the ongoing problem with over-identification of Native American students in special education--or it could be a result of sampling error. (See the following document: Report of the North Dakota Advisory Committee [to the U. S. Office of Civil Rights], dated April 27, 1993). Nineteen cases do not allow any firm conclusions to be drawn regarding the proportion of minority young adults leaving special education programs.

Table 3. Racial/ethnic background of students

Racial/Ethnic Group	Frequency	Percent
European American	209	86.7
Native American	19	7.9
Hispanic	2	0.8
African American	1	0.4
Asian American	2	0.8
Other	1	0.4
Not Reporting	7	2.9
Total	**241**	**100.0**

The special education categories are also distributed roughly equally to the nation wide average.

Table 4. Special education disability categories

Disability category	Frequency	Percent
Specific learning disability	153	63.5
Mentally handicapped	34	14.1
Emotional disturbances	31	12.9
Speech impairment	10	4.1
Other health impairment	5	2.1
Orthopedic impairment	4	1.7
Hearing impairment	2	0.8
Traumatic brain injury	1	0.4
Visual impairment	1	0.4
Total	**241**	**100.0**

The initial three categories, often referred to as "high incidence" or mild disabilities, make up a combined 90% of all students with disabilities in the sample. This, too, is not too different from the most recent national averages (86.01**%,** 18-21 year olds, 20th report to Congress**,** 1999), especially given the variability inherent in a sample of under 250 students. Also, some state-to-state differences are observed in regulations for identifying students with disabilities and resulting diagnostic practices (19th Report to Congress, 1999).

The Individual Educational Program Meeting

Respondents were asked whether the disabled student had attended their last individual educational program meeting prior to graduation. If they had attended, the question was posed as to whether the student had been an active participant. The latter issue is related to currently understood best practices in special education where self-advocacy is seen as central to assuming the adult role (Aune, 1991; Severson, Enderle, & Hoover, 1997). This includes taking a primary role in planning one's individual program.

Data were organized into mutually exclusive categories for the sake of analysis. These data are shown in Table 5. Three of four North Dakota students actively participated in their IEP. meetings, at least as the term "participation" was understood by respondents. This figure could be employed as a target datum in order to track future improvements.

Table 5. Student IEP meeting attendance status (all respondents)

I.E.P. Attendance Status	Frequency	Percent
Student was active participant	184	76.3
Attended/ Not active	11	4.6
Did not attend	38	15.8
Data not reported	8	3.3
Total	**241**	**100.0**

Data for participation in IEP conferences is laid out in Table 6 for mildly disabled students only, as these individuals may be the one's most likely to participate without special training. Note that data from tables 5 and 6 do not differ by much, probably because the three so-called, "mild" categories make up 90% of the entire sample.

The rate of active participation for the three most numerous categories was calculated. The figures were, 77.1%, 81.8%, and 64.5% respectively, for students with specific learning disabilities, mental retardation, and emotional disturbance. The overall figure of 76.3%, the category-by-category figures, or the mean percentage across the mild disabilities (76.0%) could potentially be employed as baselines with which future data could be contrasted.

The question was posed (No. 1, Appendix A) whether or not a firm post-secondary vocational goal had been established. Results are enumerated in Table 6. Goals were set for just over 8 of 10 students. On the other hand, a better figure in this case might be closer to 85%, if the 7 students for whom no data were available are ignored. On the other hand, the safest assumption was that no post-school goals were set for these individuals because if they had been the students themselves or their parents would be likely to recall these aims. The actual figure lies between 83 and 85 percent.

Table 6. Identification of Post School Outcomes goals

Goal Status	Frequency	Percent
Yes, goal identified	200	83.0
No, goal not identified	34	14.1
Data not reported	7	2.9
Total	**241**	**100.0**

Table 7 depicts the most common domains for the post-school vocational goal (given that post-secondary training is related to vocational outcomes). The wide divergence in "percent" Vs. "valid percent" figures is an artifact of the failure of many respondents to provide information on these items. It seems to us that, if goals were in fact set, then students or responding care givers would likely recall what the terminal goal was. Thus, the "percent", or more conservative column, is probably most reasonable to interpret in this particular case.

Table 7. Common post-school goal domains (Items 3.1-3.3)

Goal	Frequency	Percent[1]	Valid Percent[2]
Employment	85	35.2	55.2
Don't know	23	10.8	21.1
Military	8	3.1	7.4
Postsecondary	6	2.2	6.6
Other plans	3	1.0	3.1

[1]Percent of those providing a response.
[2]Percent of total number of respondents (N = 241). This convention is maintained throughout the rest of the report

Evidently, many respondents who responded that either they or their wards were going to pursue work as the primary post-secondary option, also selected a post-secondary option. Fully 91 (of 241 or 37.8%) respondents provided a post-secondary training option (See Table 8). By far, the most commonly selected option was vocational-technical school.

Table 8. Post-secondary training and learning options

Goal	Frequency	Percent	Valid Percent
Vocational Technical School	68	28.1	46.3
University (4-Year College)	34	14.5	27.8
Trade School	20	8.0	18.3
Other post-secondary	3	1.2	3.2

The question was posed as to which agencies had been and would be involved in helping students attain the goals set at the final planning meeting. Choices are shown below in Table 9.

Table 9. Adult provider services

Service	Frequency	Percent	Valid Percent
Vocational rehabilitation	132	55.2	73.1
College/U. Disab. services	43	18.0	32.3
No services needed	39	16.1	32.1
Job Service	31	13.9	25.2
Developmental Disabilities	20	15.3	17.8
Social security	18	8.1	16.3
Adult Learning Center	2	1.1	2.4
Other	12	5.5	12.0

Nearly three in four respondents who responded to this item (#4, Appendix A) indicated that the Vocational Rehabilitation system would be involved in their case. The next most common selection was disability services at colleges or universities. The fact that this service was frequently selected may demonstrate significant implications for special education programming. Aune and colleagues (1991; Aune & Kroeger, 1997) noted that two of the most demanding tasks for college students with learning disabilities were, (1) to self advocate (as college services are not provided unless students ask for them), and (2) to be able to describe both the nature of their LD and the adaptations that have proven successful.

Table 10 shows the reasons selected for students to leave special education secondary programs. About 3/4 students (73.4%) left special education programs because they graduated with a standard diploma. This compares to 80.3% nationally during the most recent reporting period. Either this figure, the drop out value, or both could potentially be employed as benchmarks for comparison purposes, with increases in the former and decreases in the latter serving as goals for special education in the state.

Table 10. Reasons for leaving secondary programs

Reason for Leaving	Frequency	Percent
Graduated - diploma	177	73.4
Dropped out	39	16.2
Graduated - certificate	7	2.9
Aged out	1	0.4
Other	1	0.4
No data reported	16	6.6

Outcomes of High School Transition Programs

At this initial stage of the transition follow-up study, only a few data points are available which could serve as indicants of programmatic outcomes or success. The real picture will emerge in the years to come. However, several variables were collected during the initial interviews, which could be used to judge attitudes toward programs in the state. Specifically, the percentages of students attaining certain skills, grades assigned to aspects of programs, and to a lesser extent, ratings of what students would add if they had a chance to add one more course of study fits this description.

The frequencies and percentages of students who attained (or whose care givers believe they attained) selected outcomes are shown in Table 11. These are arranged in descending rank order. Once more, the valid percent is based on the number of students making some selection from the menu of choices.

The percent column reflects the proportion of students attaining skills as a proportion of all students in the investigation (N = 241). It may be safest in this case to treat the "percent" column as the most useful datum in that, had certain skills been attained, it is likely that respondents, whether the students themselves or caregivers, would have recalled this fact. No response on the item probably means that none of the skills were achieved, yet it is impossible to make this determination with 100% certainty.

Table 11. Occupational skills attained by students during high school

Skill attained	Frequency	Percent	Valid Percent
Employment skills	143	59	71
Vocational courses/vocational prep	115	48	62
Computer literacy/keyboarding	92	38	52
Instruction - work skills	87	36	52
Learn to work in groups	73	30	44
Instruction – daily living skills	43	10	33
Instruction – social skills	41	10	31
Instruction – community skills	40	9	29
Other relevant skills	8	3	7

Reading from the "Percent" column (Table 12), it appears that 3 of 5 North Dakota leavers attained employment-based skills while in school. Of course, another interpretation is that these individuals or their caregivers perceived that they attained such skills. It will remain for collection of the follow-up data to determine whether the perceived skill levels led to successful employment as has been elsewhere observed (Rusch & Chadsey, 1998).

Just under half of students (or care givers) noted that leavers had taken vocational courses. None of the other categories approached the 50% figure, based on the total sample. Again, however, these results must be interpreted in light of the caveat that some of the students for whom no responses were forthcoming may have attained these skills and that, as a result, the values are underestimated. We see that possibility as unlikely for the reasons stated above, however.

Students and/or their parents were requested to grade three aspects of their high school programming, (1) their overall high school program, (2) the special education aspect of high school programming, and (3) transition services. The mean grades are enumerated in Table 12 and depicted in Figure 1. Grades were converted to the typical grade point average (F = 0, D = 1, Etc.), with 4.00 representing the highest possible grade.

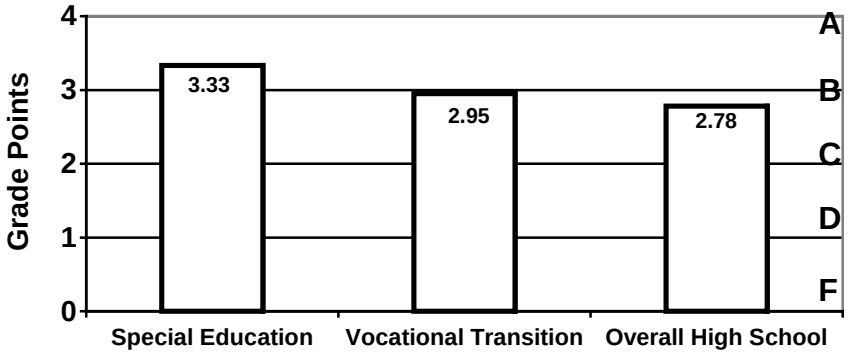
Table 12. Satisfaction with special high school programs

Aspect of Program	Mean	sd
Satisfaction with special education	3.33	0.99
Satisfaction with transition	2.95	1.00
Overall satisfaction with high school program	2.78	0.99

Figure 1 (below) shows the grades assigned to aspects of school programs by responding students or parents. As can be seen, the special education program received the highest grade (B+), followed by, in order, transition aspects of programs (B) and overall satisfaction with high school programming (perhaps a B-).

A one-way, repeated measures ANOVA was calculated in order to determine whether the differences between the grades received by three program aspects were significant (across all respondents who answered the three questions). Results suggest that the ratings differences occurred at greater than a chance level ($F_{2,334} = 28.9$, $p < .0001$). A post-hoc analysis revealed that all three ratings differed from one another.

Figure 1. Mean Grades Assigned for Aspects of the High School Program



The meaning of the different ratings between the three aspects of the programs remains to be determined. Perhaps parents and students responding to the interview were more familiar with or received more personal attention from their special education case manager than they did from

general educators. This familiarity, compared with that associated with general educators may have inflated the different ratings between the categories. This may deserve the attention in future evaluation studies, though the overall magnitude of the rating differences was quite small. To further analyze these data, the percentages of favorable grades (A's + B's) middling grades (C's), and unfavorable ratings (D's + F's) was calculated for each aspect of high school programming. The results are shown below in Table 13. Either the means shown in Table 12 above (or depicted in Figure 1) or the grade percentages shown below, might make useful benchmarks with which to gauge one aspect of overall programmatic approval in North Dakota.

Table 13. Student grades/rating of high school programs

Programmatic Aspect	Favorable: A's + B's	Middling: C's	Unfavorable: D's and F's
Overall High School	66.7	27.5	5.8
Vocational/Transition	74.7	20.6	4.7
Special Education	87.6	11.2	1.2

What Respondents Would Like to Take

High school leavers were asked about offerings they would take if they could choose one more course of study at the high school level. It was thought that this item (No 8, Appendix A) would get at the types of programs students wished they had, without necessarily asking them to criticize the programs they had just left. Results are shown below in Table 15.

Table 14. What students would take if they had access to one more class

Type of Course	Frequency	Percent	Valid Percent
Functional/ vocational	100	41.5	58.8
Courses of topical interest	35	14.5	20.6
Academic courses	31	12.9	18.2
Multiple responses	4	1.7	2.4

Of those making a selection, a clear majority (58.8%) selected more functional or vocational training. Oddly, no relationship was observed between whether students had acquired skills and the degree to which they wanted to take more courses. Students who possessed vocational skills wanted to learn more, while students who did not possess such skills would like to add them.

Only about 2 in 20 students or adult caregivers (18.2%) argued that more academic courses were needed. This result may have been related to the favorable rating of special education courses compared with the general high school program. To test this, a correlation coefficient was calculated between [grade] ratings of the general program and whether (coded as 1) or not (coded as 0) they had deemed more academic course work as necessary. The resulting

correlation (r_{xy} = -.125) was not significant. The directionality of the correlation suggests that, if anything, those rating the general program weaker would like more academic work. However, the magnitude of the relationship was small.

Some writers, notable Aune (1991) have argued that LD students have come to universities unprepared for the rigors of college life because of too much academic support and having taken too few demanding college-preparatory courses **(**particularly in mathematics, writing, and science). Thus, the same data were analyzed for students with learning disabilities. The response patterns observed above were also present in students with learning disabilities. In other words, no groundswell of perceived need for more academic work was noted.

Summary and Conclusions

Conclusions warranted from the initial rounds of data collection are presented below.

1. Some difficulty of interpretation resulted from many variables (questions) for many subjects left blank. It is important that, as the study proceeds, interviewers generate data for as many items as possible, carefully indicating when students respond no to an item.

2. The gender and racial makeup of the sample is representative, given overall population proportions in the state. The exception to this is that the sample may reflect a slight over-representation of American Indian students. The overall sample size is too small to draw this conclusion, however.

3. The proportion of males (approximately 6 to 4, males-to-females represents national data, whether one looks at overall caseloads or data on special education leavers.

4. The categorical proportions of leavers in the North Dakota sample is quite similar to data reported at the national level in the most recent Report to Congress on IDEA.

5. Nine of ten leavers in the sample represent the three mild (or high incidence) disability categories, specific learning disabilities (63.5%), mental retardation (14.1%, EMH + TMH), and emotional disabilities (1.29%).

6. The best estimate currently possible is that 3 of 4 North Dakota students actively participate in their last IEP meeting (76.3%). While this is quite positive, it is possible that goals could be set targeting an increase in this value, especially considering that 90% of leavers are mildly disabled.

7. The figures on active participation in transition staffings for the 90% of students in the mild disabilities categories are 76.0%. The fact that this closely matches the overall figure is not surprising in that these individuals represent 90% of all leavers. The figures by (mild) categories are 77.1%, 81.8% and 64.5% for LD, MR, and EBD respectively. Baseline goals could also be set for these individuals.

8. Post-secondary career goals were established in 8 of 10 instances (83.0%). This reflects a high degree of quality in this regulation of special education programming. As was true of transition planning participation on the part of students, it is reasonable to assume that this

already impressive figure could be increased, given appropriate policies and professional development opportunities.

9. Most commonly, goals were set in the employment domain (55%), followed by, in order don't know (21%), military (7%), and post-secondary (6%).

10. Even when respondents reported that their primary post-school goal was work, many reported post-secondary schooling aims. Perhaps some of these were long-range goals. Of the entire sample, 28% proposed to attend two-year/ vocational-technical institutes, 27% named four-year colleges, and 18% listed aims for attending trade schools.

11. Respondents named multiple agencies, which would be recruited to support post school goals. Leavers (or caregivers) who provided the information named a mean of 1.1 agencies, led by Vocational Rehabilitation (55%), college/university disability services (18%), Developmental Disabilities (15%), and Job Service (13%).

12. It may be possible to set state improvement goals for the involvement of other professionals and agencies in the transition process. If students for whom no data are coded as having no help from another agency (probably a reasonable assumption), then 67.6%, about two-thirds, of North Dakota leavers either (a) make use of other agencies, or (b) are aware that such individuals are involved in their transition planning.

13. The best estimate possible from the current data set is that 3 out of 4 North Dakotans with disabilities leave school with a diploma (73.4%), a figure just under the national average. The value may be sued as a benchmark against which to judge future improvements. The figure for graduating with a diploma could be as high as 78.6% if the percentage is figured only for those providing data as to the circumstances of leaving school (73% of all leavers; 79% of those providing a reason for leaving).

14. About three fifths of leavers are thought to have acquired skills related to employment. This was the only domain where more than 1/2 of all respondents reported having acquired skills. If only those responding to the item are employed as a benchmark, then more than half of the leavers with disabilities acquired employment (71%), vocational (62%), and computer/keyboarding (52%) skills. Just over 1/2 of those responding to the item learned to work in groups (52%), as well.

15. Relatively high levels of satisfaction were voiced for high school programs. Special education received a B+ (3.33 grade points out of 4.00), vocational transition services attained a B (2.95) The overall high school program was awarded a B- (2.78). Altogether, 88% of respondents gave special education programs A's and B's. The figures for vocational transition and "overall high school program" were 75% and 67% respectively.

16. The three values (grades for the aspects of high school programs) were statistically significantly different from one another. Since the grades awarded did not correlate with any other variables (disability categories, skills attained), the reasons for the differential ratings are not clear.

17. Of those willing or able to respond to the item, (roughly 6)% would take more functional or vocational courses, given the chance. Proportions selecting “functional vocational” were unrelated to the “skills attained” variables. This suggests that students receiving vocational and functional programming would like more and students not receiving this program would like to attain some training in this domain.

18. Only about 2 in 20 respondents argued that academic coursework was warranted. This figure was not significantly different for LD college bound students, who must feel that they received sufficient preparation for college in their high school programs.

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